

# Alarming Aquifer

**Background:** In this activity, kids will learn the parts of an aquifer. An aquifer is a layer of rock, sand, or gravel beneath the earth's surface that contains water.

## **Materials Needed:**

Clear plastic 1-liter bottle with spout and first ½" cut off

Sand topsoil

2 transparent straws

Washed pea gravel

Water

## **Procedure:**

1. Put the gravel on the bottom of the plastic bottle to a depth of 2 inches.
2. Position two straws upright in the gravel layer. While holding the straws, pour 3 inches of sand on top of the gravel.
3. Add 1 to 2 inches of topsoil on top of the sand.
4. Slowly add water to saturate the sand and gravel. This water becomes the groundwater. Note the water's movement through the sand and gravel.
5. Suck the top end of one of the straws. Pinch the opening of the straw closed. Observe the effect of the pumping action on the aquifer. (The effect is similar to the effect of the pumping action of a well.)
6. Suck on the second straw and repeat the process. Note the effect on the level of the groundwater.
7. Suck on the straws several times and observe any changes in the groundwater model.